Project Overview

The electric vehicle (EV) industry is undergoing rapid growth and transformation, driven by the global push towards sustainable transportation and reducing dependence on fossil fuels. While hardware innovations in batteries and powertrains have been key, the real power behind the modern EV revolution lies in data. From range prediction and battery optimization to consumer usage patterns and charging behavior, data analytics plays a central role in shaping the future of electric mobility.

This project, titled “Visualization Tool for Electric Vehicle Charge and Range Analysis,” is designed to explore and visualize critical EV-related data using Tableau, a leading data visualization platform. The objective is to bridge the gap between raw data and actionable insights through intuitive dashboards and stories that convey complex datasets in an understandable and interactive format.

The core idea revolves around integrating multiple datasets related to EVs — both from Indian and global perspectives — and presenting them via rich visualizations. These visualizations are not only hosted in Tableau but are also seamlessly embedded into a web application, thereby making insights easily accessible to a broader audience including stakeholders, policymakers, engineers, researchers, and consumers.

This project demonstrates the power of interactive dashboards, data storytelling, and web integration, providing a comprehensive, real-time analytical platform that helps users:

- Analyze charging patterns, range, and adoption rates.
- Understand trends across various EV models and geographies.
- Make informed decisions based on data-driven insights.

The project is not only a technical showcase but also a strategic tool to promote the awareness and adoption of electric vehicles through data clarity and accessibility.